

REMARKS/ARGUMENTS

I. Introduction:

Claims 1, 14, and 15 are amended herein. Claims 1-9 and 11-29 are currently pending.

II. Claim Rejections – 35 U.S.C. 101:

Claim 14 has been amended to specify that the computer-readable storage medium is not a data signal embodied in a carrier wave. Claim 15 has been amended to remove a data signal embodied in a carrier wave. As amended, claims 14 and 15 are believed to comply with the requirements of 35 U.S.C. 101.

III. Claim Rejections - 35 U.S.C. 103:

Claims 1-9 and 11-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,219,703 (Nguyen et al.) in view of U.S. Patent No. 5,913,037 (Spofford).

Claim 1 is directed to a method for configuring contents of a network management notification. The method generally includes sending a request for a management station to at least one agent for a list of notifications supported by the agent, receiving the list of notifications, determining objects defined in the notifications, sending a message to the agent specifying the objects to include in each notification, and receiving a notification containing the specified objects upon occurrence of an event. The management station specifies the order of the objects to be included in notifications sent from the agent to the management station. Claim 1 has been amended to clarify that the message specifying objects to include in the notification and the order of the objects is sent from the management station.

The Nguyen et al. patent discloses a method and apparatus for constructing a device Management Information Base (MIB) in a Network Management Station (NMS). The device provides an agent, which includes a management structure MIB having data describing a device MIB structure supported by the device. The NMS includes an application which interprets data of the management structure MIB and constructs the device MIB. As shown in Fig. 1, the NMS includes device MIBs and a discovery application. The devices (or agents) each include a management structure MIB. The discovery application detects that a device is present on the network and accesses the management structure MIB to obtain data describing the device MIB structure. Fig. 2 illustrates contents of a management structure MIB, which includes a standard list of MIB objects 208. A process of the invention is shown in Fig. 5. The NMS retrieves a list of standard MIBs and objects supported by the device using a conventional SNMP GET-NEXT command over the standard MIB table (steps 508 and 512). The NMS accesses the management structure MIB using conventional SNMP communications through a conventional communications link. The NMS then constructs a MIB for managing the device and loads it into the memory of the NMS.

The Spofford et al. patent is directed to a dynamic management information base manager for dynamically managing a tree of SNMP data objects identified by a standard object identifier along with each object's value. An agent uses the interface of the MIB manager to add and delete MIB objects by OID. The management station sends conventional SNMP requests, such as "get", "getnext" or "set" to a management module of a network device. An agent uses the interface of the MIB manager to add and delete MIB objects and provides references to subroutines which operate to manage the identified by objects by controlling the objects' value. This allows the MIB manager to be implemented in a manner independent of the application and hardware.

Applicants respectfully submit that claim 1 is patentable over Nguyen et al. and Spofford et al., which do not show or suggest sending a message to an agent specifying objects to include in each notification and the order of the objects. Nguyen et al. are concerned with constructing an MIB in a management station so that the management station can use the MIB to manage a device. The management station uses information

from a device MIB to construct its MIB. The management station does not specify to the agents which objects to include in each notification or the order of the objects, as required by claim 1. In rejecting claim 1, the Examiner refers to Fig. 4 of the Spofford et al. patent, which shows a network device configured for dynamically modifying its internal MIB. As discussed above, Spofford et al. are concerned only with managing an internal management information base and do not address sending or receiving requests for notifications or any details of notifications supported or objects defined by the notifications. Conventional systems, such as those described in Nguyen et al. and Spofford et al., have drawbacks in that newer versions of MIBs may result in new objects being added to notifications. In fact, Spofford et al. specifically disclose modifying the structure of an MIB and thus create the problem addressed by applicants' invention. If the information maintained by and transmitted between agents and the management stations differ it is difficult for the management station to interpret the notifications received from the agents.

Applicants' invention is particularly advantageous in that the management station instructs an agent which objects to send for each notification and the order of the notifications so that notifications can be easily specified and reconfigured by a management station, thus providing increased flexibility. This allows system administrators to tailor notifications to meet specific needs of a network.

In Response to Applicant of the Office Action dated June 17, 2005, the Examiner argued that

Spofford, Fig. 4 shows an agent 408 that is responsible for updating the dynamic MIB. The agent adds and deletes MIB objects. It is inherently implied that the objects to be deleted or added are sent to the agent. Spofford, Fig. 5A shows that MIB structures have a specific order, therefore updating the objects within the MIB would necessitate knowledge of the order of the objects.

Applicants respectfully disagree with the Examiner's assessment of Spofford et al. The agent does not modify the MIB structure based on input from a management station. The MIB manager, which modifies the MIB at the agent, adds a new object to the MIB structure in response to a request by the agent and according to the definition within the agent of the new object (see, for example, col. 3, lines 30-35 and col. 12, lines 42-52). The agent controls the MIB structure, which is modified based on changes at the agent.

None of the references cited teach or suggest sending a message from the management station to the agent specifying objects and the order of the objects in each notification.

Accordingly, claim 1 is submitted as patentable over Nguyen et al. and Spofford et al. Claims 2-9, 11-13, and claims 24-29, are submitted as patentable for the same reasons as claim 1.

Claims 14 and 19 are directed to a computer program product and system, respectively, for configuring contents of a network management notification, and are submitted as patentable for the reasons discussed above with respect to claim 1.

Claims 15-17, depending directly from claim 14, are submitted as patentable for the same reasons as claim 14.

Claim 18 is directed to a system comprising a processor that receives information specifying contents of notifications supported by an agent at a management station and sends instructions from the management station to the agent to modify the contents of the notification to a preferred configuration. Claim 18 is submitted as patentable for the reasons discussed above with respect to claim 1.

Claim 20 is directed to a method for sending SNMP notifications from an agent to a management station and includes receiving a message from the management station specifying objects for notifications supported by the agent, modifying a list of objects for the notifications and including selected objects in a specified order, and sending a notification containing the specified objects in the specified order upon occurrence of an event. As discussed above, Nguyen et al. simply provide a method for sending MIB

information from an agent to a management station and creating an MIB at the management station for managing the agent. Nguyen et al. do not disclose receiving a message from a management station which specifies objects to include in notifications it sends to the management station or modifying a list of objects for notifications to include, as set forth in claim 20.

Accordingly, claim 20 and claims 21-22, depending either directly or indirectly therefrom, are submitted as patentable over Nguyen et al. and Spofford et al.

Claim 23 is directed to a system for sending SNMP notifications from an agent to a management station and is submitted as patentable for the reasons discussed above with respect to claim 20.

Claims 24-29 have not been addressed by the Examiner and are submitted as patentable over the prior art of record.

IV. Conclusion:

For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,



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